group: 44% male, 56% female in the prior ipsilateral meniscal procedure group as compared to 30% male, 67% female in the no prior procedure group. Significantly, more patients with a prior meniscal procedure were under 60 years of age (40% v. 18%) and were on average, 7 years younger than patients without a prior procedure. Comparing the prior meniscal procedure group v. the non- procedure group, no significant differences were observed in self-reported function (SF12 PCS = 31 v. 30); BMI (32 v. 32) or emotional health (SF12 MCS =51 v. 52). Patients experiencing pain levels in both the severe and moderate categories (PCS $<$30; 30-44) were significantly higher in the prior procedure group v. the non-prior procedure group (31% v. 26% and 25% v. 18%). In addition, significantly more patients had normal alignment in the prior procedure group than non-prior procedure group (56% v. 50%).

Conclusions: The prevalence, incidence and burden of knee OA in those with prior ipsilateral meniscal injuries are not known. These analyses found a significant percentage (20) of TKR patients with a prior ipsilateral meniscal procedure (APM or open). When compared to TKR patients with no prior procedure, patients with prior meniscal procedures are younger at surgery but experience levels of pain, functional limitation, and emotional health comparable to the older TKR patients with no prior procedure. In fact, the proportion of patients with severe disability (PCS $<$30) was higher in the prior-procedure group than in the non- procedure group (31% v. 26%). Additional research is needed to clarify specific relationships between types of prior meniscal injuries and types of repair procedures and estimates of the incidence of OA in these younger patients. Taken together, current data suggest the possibility of growing a public health problem in which younger OA patients are more significantly impaired perhaps due to soft tissue knee injuries from more active lifestyles earlier in life. Since TKR is not an immediate option in all cases, chondroprotective pharmacologic research such as disease-modifying osteoarthritis drug (DMOADs) development is desirable to meet these needs.

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EIGHTY-SIX (86) PER CENT OF 66 PATIENTS WITH ADVANCED OSTEOARTHRITIS OF THE KNEE AVOIDED TOTAL JOINT REPLACEMENT FOLLOWING TREATMENT WITH INTRA-ARTICULAR GROWTH HORMONE (IAGH) INJECTIONS

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Purpose: The IAGH method demonstrates the efficacy, safety, and low cost of a stem cell productive method of regenerating articular cartilage in arthritic knees. This method provide a tissue regenerative alternative to metal/plastic artificial joints and requires no transplants. IAGH treatment costs 1/4 the cost of total joint surgery and can save billions of dollars spent on medical care annually.

Methods: Sixty-six patients with advanced osteo-arthritis of the knee were treated with a series of intra-articular injections of human growth hormone (HGH). One third of the patients required arthroscopic surgery to remove torn menisci, avascular areas and chondral flaps. The dose of HGH varied from 5 mgm to 10 mgm depending on the size of the joint. The length of treatment varied from six to ten weeks depending on the response to treatment as measured by increase in joint space. Standing X-rays were taken pre-treatment, bi-weekly during treatment and at the end of the study. The space between the femoral condyle and the tibial plateau was carefully measured on every X-ray. The patients were again examined from two to four (4) years post treatment. Patients were evaluated for return of joint spaces, absence of pain, increase of motion and return to normal activities (IKDC scales).

Results: Eighty-six per cent. (sixty)of the patients showed marked improvement with increase of joint space, absence of pain, increase of motion, and return to normal activities (IKDC scale). Of the remaining six patients, only three had total knees and three patients were undecided. Graphs and data are included. There were no infections, complications or deaths associated with this treatment.

Conclusions: A safe, efficacious, economical and readily available alternative to total joint surgery. This treatment can lower the cost of medical care by billions of dollars annually. The benefits of IAGH treatment: There are no complications, infections or deaths associated with the treatment as compared to total joint surgery. Patients have been extremely satisfied with the results.

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PATIENT CHARACTERISTICS AS A PREDICTOR FOR THE CLINICAL OUTCOME OF JOINT DISTRACTION IN TREATMENT OF SEVERE ANKLE OSTEOARTHRITIS

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Purpose: Distraction of tibio-talar joints in severe ankle osteoarthritis (OA) has demonstrated clinical efficacy (A&R 2002; OA&C 2005). However, failure rate is still considerable. From clinical practice it was suggested that joint mobility (laxity) might be related to clinical outcome. Therefore, patient characteristics including joint mobility at baseline were compared to clinical outcome of joint distraction in order to predict failure to treatment.

Methods: Data were used from an open prospective clinical study in which 72 patients with severe (posttraumatic) OA of the tibiotalar joint, who were considered for arthrodesis, were treated with joint distraction. Range of Motion (R.O.M.) of the contralateral joint, pain, functional ability, gender, and age at baseline were correlated with clinical outcome at 5 years.

Results: Until now from all 72 patients (longest follow-up 15 years) 39% of the patients underwent arthrodesis. The patients with a follow-up of $\geq$ 12 years (n=7) still showed a significant improvement of pain (-48%, p=0.04) and functional ability (+ 63%, p=0.03). From 53 (43.8$\pm$10 years) out of the 72 patients data on R.O.M. of the contralateral ankle joint at baseline and clinical outcome at 5 years was available. 5 years after treatment, 31 patients were still in follow-up while 22 patients underwent arthrodesis. The R.O.M. of the contralateral ankle joint, pain, and functional ability at baseline correlated with improvement of functional ability (resp. R=0.51, R=0.27, R=0.47 p=0.003, ns, p=0.007) and pain (resp. R=0.34, R=0.41, R=0.47, p=0.06, p=0.022, p=0.007). No correlations were found for age and gender. However, 23% of all male patients (n=30) underwent arthrodesis, compared to 65% of all female patients (n=23) (p=0.002).

Conclusions: Joint distraction results in prolonged clinical benefit in the treatment of severe ankle osteoarthritis, although with a failure rate over the years of 39%. A high R.O.M. (of the contralateral healthy joint), a high pain and a low functional ability at baseline relate to a better clinical benefit of joint distraction 5 years after treatment. Interestingly, only gender predicts the percentage arthrodeses, although the underlying mechanism is unknown. Further evaluations on predictive parameters have to be performed.